ESF Coordinator

Columbus Fire/Rescue Department

Primary Agencies

Stillwater County Disaster and Emergency Services

Support Agencies

Columbus Police Department
Regional HAZMAT Team, Billings
National Weather Service
County Rural Fire Departments
Stillwater County Sheriff's Office
Montana Department of Environmental Quality
Montana Disaster and Emergency Services
Montana Highway Patrol
Montana Department of Transportation
Montana National Guard, 83rd Civil Support Team
Refinery HAZMAT Teams
Montana/Wyoming Spill COOP
Local Pipeline Companies

Introduction

Purpose

Emergency Support Function (ESF) #10 – Oil and Hazardous Materials (HAZMAT) provides initial incident response and extended incident support to an actual or potential discharge and/or uncontrolled release of oil or HAZMAT when activated.

Scope

ESF #10 provides for a coordinated local government effort in response to actual or potential oil and HAZMAT incidents that have the potential to be a threat to public health and safety, or to the environment.

Both federal and state statutes indicate the person responsible for the release (responsible party) is responsible for the cleanup. Local government must implement appropriate notification and response actions in order to save lives and property during a HAZMAT incident, especially during the early stages. Hazardous materials include chemical, biological, and radiological substances, whether accidentally or intentionally released. ESF #10 may also be used under appropriate authorities to respond to actual or threatened releases of other materials that pose a threat to public health or welfare or the environment.

The scope of ESF #10 includes the appropriate actions to prepare for, respond to and recover from a threat to public health, welfare, property or the environment caused by actual or potential oil and HAZMAT incident.

Appropriate general actions implemented by local government resources include, but are not limited to: protecting the public by preventing, minimizing or mitigating a release; efforts to detect and assess the source and/or extent of contamination (including sampling and analysis and environmental monitoring); actions to stabilize the release and prevent the spread of contamination. Cleanup and remediation are the obligation of the responsible party.

ESF #10 is activated during incidents or potential incidents requiring operational capabilities by local resources or extended incident support in response to a potential or actual oil or HAZMAT incident. Columbus Fire/Rescue Department (CFR) is designated as the "Local Emergency Response Authority" (LERA) as defined in MCA 10-3-1208 with powers and duties outlined in MCA 10-3-1209 for Stillwater County

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) requires that oil and hazardous materials releases be reported to the National Response Center (40 CFR 300.125.). The National Response Center (NRC) provides notifications of such reports to the National Operations Center (NOC) to promote situational awareness.

The ESF #10 Coordinator is CFR as this agency is designated as the LERA for all of Stillwater County and has the highest operational capability and knowledge of this subject matter. ESF #10 Primary and Support Agencies provide support and resources as requested, within their training and capabilities.

Policies

Table 10-1. Policies

General	• ESF #10 is activated by any officer with a local fire or law enforcement organization, or by Stillwater County Disaster and Emergency Services upon notification of a potential or actual incident or event that requires a coordinated response and support. • ICS and NIMS principles shall be followed for all emergencies or disasters. • Actions initiated under ESF #10 are coordinated and conducted cooperatively with federal, state and local agencies, incident management officials and with private entities as required. • During oil and HAZMAT incidents, responders initial actions should focus on: 1. Safety 2. Isolation of the area/ denying entry 3. Notifications • Standing Policies, Procedures and Guidelines of the CFR-HAZMAT shall be in effect for department members. • HAZMAT Teams brought in from outside agencies shall have operational control over their team members after receiving an assignment, under the direction of incident command. • All responders will act within their training and capabilities. • It is the discretion of the CFR-HAZMAT Team where they would like to be located in the ICS organization. • Reimbursement may be provided through state programs, from the responsible party or other sources, as available. • The incident commander (IC) shall declare that the emergency situation associated with an incident has ended when the acute threat to public health and safety or to the environment has been sufficiently addressed, per MCA 10-3-1209(3) • Many federal laws govern oil and hazardous material incidents due to

	their potential impact and targeted use for terrorist activities. These federal laws play an important part in determining the local role on large-scale and/or long duration incidents. Stillwater County will participate in these incidents to ensure consideration of local needs by federal officials as much as possible. Reference Federal ESF #10 for more information.

Concept of Operations

General

ESF #10 provides for a coordinated local government effort in response to actual or potential oil and HAZMAT incidents that have the potential to be a threat to public health and safety or to the environment.

CFR-HAZMAT Team organizes the ESF staff and support agencies based on need to provide safety from an acute onset oil or HAZMAT release until the threat to public health and safety or the environment has been sufficiently addressed. Local governments or resources are focused on acute affects and public safety, they are not responsible for cleanup or mitigation work.

The Incident Command System (ICS) will be utilized for all oil and HAZMAT incidents within Stillwater County. Local On-Scene Coordinators (LOSC), if used, are expected to work under ICS and are considered to be resources for the IC.

Unified Command (UC) may contain representatives from local fire, law enforcement, public health, environmental protection, responsible party or other involved agency.

ESF #10 is scalable to meet the specific needs of each incident, based upon the nature and magnitude of the event, the suddenness of onset, and the availability of local resources.

Under the ICS, primary and support agencies will provide assistance to the ESF Coordinator in line with their agency mission, functions, training and capabilities.

Public Sector

HAZMAT response in Montana follows a regional model with teams based across the state. Billings Fire Department (BFD) is home to the Eastern Montana Regional HAZMAT Team which covers all of Stillwater County. CFR is designated as the “Local Emergency Response Authority” (LERA) as defined in MCA 10-3-1208 with powers and duties outlined in MCA 10-3-1209 for the City of Columbus and all county areas outside Columbus.

NOTE: All requests for the Regional HAZMAT Team ***MUST*** go through SC DES to ensure the State DES and Governors Office are notified for pay purposes.

Local Fire Districts, Fire Service Areas, Fire Companies and other municipal fire departments provide initial incident assessment within their training and capabilities and serve as the initial IC. The ICs from local fire organizations are responsible to recognize when an incident exceeds their training and capabilities and request the assistance of Eastern Montana Regional HAZMAT Team in a timely manner. Assistance is available anytime and includes everything from technical consultation over the phone/radio to mobilization of operational HAZMAT Team personnel.

If the BFD-HAZMAT Team responds to the incident, the team may work in Unified Command (UC) and may elect to work as a specialized operation (Branch/Section/Division/Group) established by the IC or as part of UC.

Responses to a release from oil or gas pipeline within Stillwater County require the notification of the responsible party. Contact the appropriate pipeline company as soon as is possible.

The nature and duration of an oil or gas pipeline release may exceed the initial response mission of the Regional HAZMAT Team but may still require involvement from the local jurisdiction. Transfer of command, in this instance, should be completed in a formal and documented process after ensuring early communication per the Planning Section in ESF #5.

Potential long-term roles on a large incidents include serving as part of UC or working as a LOSC. UC roles will be filled by the local fire chief(s) or by the Stillwater County Disaster and Emergency Services Coordinator (or their designee) in areas outside a Fire District, Fire Service Area or Municipal Fire Department.

The LOSC role will be filled by the Stillwater County Disaster and Emergency Services coordinator (or his/her designee) on behalf of Stillwater County. Cities/towns may also appoint a LOSC on behalf of the jurisdiction.

Private Sector

A pipeline emergency creates a dangerous situation for emergency responders. Pipeline operators are required to be part of the team working towards the safe resolution of the incident. Responders' goal is to minimize the level of risk to responders, the community and the environment.

Cleanup and remediation remain the obligation of the responsible party following federal and state statutes or local requirements. Many responsible parties also have technical assistance available through local personnel and/or 24-hour phone numbers. Stillwater County has a medium-density of oil and gas pipelines and operators within its borders, their contact information is below. Some of the companies listed below do NOT have pipelines in Stillwater County.

Yellowstone	Emergency Number
Cenex Pipeline, LLC	1-800-421-4122
ExxonMobil Pipeline Co	1-800-537-5200
Front Range Pipeline, LLC	1-800-421-4122
Montana Dakota Utilities Company	1-800-638-3278
NorthWestern Energy	1-888-467-2669
Phillips Pipe Line Co	1-877-267-2290
Plains Pipeline, L.P.	1-800-708-5071
WBI Energy Transmission	1-888-859-7291

These contact numbers allow for technical assistance to be provided by the responsible pipeline operator. Pipeline operators have staff trained and equipped to assist in response to a pipeline release. Pipeline operators will likely be required to mitigate the hazard and close the incident. These

requirements are vast in their potential work but will most likely require the operator to work with their equipment to close valves, shut down pipelines, conduct cleanup and mitigation activities.

If pipeline damage is suspected or has occurred, it is very important that the pipeline operator shut down or isolate the affected pipeline segment. Actions should be taken to contact the appropriate pipeline company as soon as possible. The 24/7 contact numbers for pipeline operators are above.

Pipeline Products and Hazard Information (from Montana Liquid and Gas Pipeline Association)

Natural Gas is the predominant product found in gas distribution pipelines, and with few exceptions, is transported via pipelines in gaseous form. Like crude oil, it is a naturally occurring resource formed millions of years ago as a result of heat and pressure acting on a decayed organic material. It is extracted from wells and transported through gathering pipelines to processing facilities. From these facilities it is transported through transmission pipelines to distribution centers for distribution pipeline systems. The main ingredient in natural gas is methane (94%). Natural Gas typically is odorless, colorless and tasteless and nontoxic in its natural state. When transported via transmission pipelines, natural gas typically does not have an odorant added. An odorant (called mercaptan) is normally added when it is delivered to a distribution system. At ambient temperatures, natural gas remains lighter than air. However, it can be compressed under high pressure to make it convenient for use in other applications or liquefied under extremely cold temperatures (-260$^{o F}$) to facilitate transportation.

Petroleum Gas is a mixture of gaseous hydrocarbons, primarily propane, butane and ethane, which are easily liquefied under pressure and are used for residential or commercial heating and other industrial applications. Propane and butane are often stored and transported under pressure as (LPG) in portable containers for use as fuel for heating and cooking applications. LPG is usually transported through hazardous liquid transmission pipelines and may also be identified as Highly Volatile Liquids (HVLs) or Natural Gas Liquids (NGLs). Vaporized propane and butane may also be found in small distribution systems. LPG is a tasteless, colorless and odorless gas. When transported via transmission pipelines it typically will not have odorant added. Odorant is added when LPG is offloaded to a distribution pipeline system or transport tanks to facilitate leak detection.

Petroleum Liquids is a broad term covering many products, including crude oil, gasoline, diesel fuel, aviation gasoline, jet fuel, fuel oil, kerosene, naphtha, xylene and other refined products. Crude oil is unrefined petroleum that is extracted from beneath the earth's surface through wells. As it comes from the well, crude oil contains a mixture of oil, gas, water and other impurities, such as metallic compounds and sulfur. Refinement of crude oil produced petroleum products that we use every day, such as motor oils and gasoline. Crude oil is normally transported from wells to refineries through gathering pipelines. Refined petroleum products are normally transported in transmission pipelines to rail or truck terminals for distribution to consumers. Odorant is not added to these products because they have a natural odor.

Anhydrous Ammonia is the liquefied form of pure ammonia gas. It is a colorless gas or liquid with an extremely pungent odor. It is normally transported through transmission pipelines located in the Midwest and is used primarily as an agricultural fertilizer or industrial refrigerant.

Carbon Dioxide is a heavy gas that is normally transported in transmission pipelines as a compressed fluid. It is a naturally occurring, colorless, odorless and tasteless gas used in the petroleum industry. Under normal conditions, carbon dioxide is stable, inert and nontoxic.

Ethanol (also called ethyl alcohol) is a colorless liquid that is widely used as an additive to automotive gasoline. It may be transported in buried transmission pipelines.

Hydrogen Gas is commonly produced from the steam reforming of natural gas. It is frequently used near its production site, with the two main used being petrochemical processing and ammonia production. Hydrogen is a flammable gas that is colorless, odorless and lighter than air. It is nontoxic, but can act as a simple asphyxiant.

"Sweet" Crude Oil and Gas Products contain little or no sulfur.

"Sour" Crude Oil and Gas Products contain high concentrations of sulfur and hydrogen sulfide.

Hydrogen Sulfide (H2S) is a toxic, corrosive contaminant found in natural gas and crude oil. It has an odor like the smell of rotten eggs or a burnt match. Exposure to relatively low levels of hydrogen sulfide (500 ppm) can be fatal.

Table 10-2. Hazard Information**

Hazard Information

(1) These products are naturally odorless and only certain pipeline systems may be odorized.

	Natural Gas	Petroleum Gas	Petroleum Liquids	Anhydrous Ammonia	Carbon Dioxide	Ethanol	Hydrogen Gas	Sour Gas (H2S)	Sour Crude Oil (H2S)	Liquids & Natural Gas
INDICATIONS OF A LEAK										
An odor like rotten eggs or a burnt match	(1)	(1)						X	X	(1)
A loud roaring sound like a jet engine	X							X		X
A white vapor cloud that may look like smoke		X		X						
A hissing or whistling noise	X	X		X	X		X	X		X
The pooling of liquid on the ground			X			X			X	X
An odor like petroleum liquids or gasoline		X	X			X			X	X
Fire coming out of or on top of the ground	X	X					X	X		X
Dirt blowing from a hole in the ground	X	X		X	X		X	X		X
A sheen on the surface of water		X	X						X	X
An area of frozen ground in the summer	X	X			X	X	X	X		X
An unusual area of melted snow in the winter	X	X			X		X	X		X
An area of dead vegetation	X	X	X				X	X	X	X
Bubbling in pools of water	X	X			X		X	X		X
An irritating and pungent odor				X				X	X	
HAZARDS OF A RELEASE										
Highly flammable and easily ignited by heat or sparks	X	X	X			X	X	X	X	X
Will displace oxygen and can cause asphyxiation	X	X		X	X		X	X		X
Vapors are heavier than air and will collect in low areas		X	X	X	X	X		X	X	X
Contact with skin may cause burns, injury or frostbite		X	X	X	X	X	X	X		X
Initial odor may be irritating and deaden the sense of smell								X	X	
Toxic and may be fatal if inhaled or absorbed through skin				X				X	X	
Vapors are extremely irritating and corrosive				X				X	X	
Fire may produce irritating and/or toxic gases	X	X	X	X		X	X	X	X	X
Runoff may cause pollution			X	X		X			X	X
Vapors may form an explosive mixture with air	X	X	X			X	X	X	X	X
Vapors may cause dizziness or asphyxiation without warning	(1)	(1)			X		X	X	X	(1)
Is lighter than air and can migrate into enclosed spaces	X						X			X
EMERGENCY RESPONSE										
Avoid any action that may create a spark	X	X	X	X			X	X	X	X
Do NOT start vehicles, switch lights or hang up phones	X	X	X	X			X	X	X	X
Evacuate the area on foot in an upwind and/or uphill direction	X	X	X	X	X	X	X	X	X	X
Alert others to evacuate the area and keep people away	X	X	X	X	X	X	X	X	X	X
From a safe location, call 911 to report the emergency	X	X	X	X	X	X	X	X	X	X
Call the pipeline operator and report the event	X	X	X	X	X	X	X	X	X	X
Wait for emergency responders to arrive	X	X	X	X	X	X	X	X	X	X
Do NOT attempt to close any pipeline valves	X	X	X	X	X	X	X	X	X	X
Take shelter inside a building and close all windows				X	X			X	X	

Table 10-2 Hazard Information provided by Montana Liquid and Gas Pipeline Association (MLGPA). Other manuals or response guides may contain different or more detailed information.

Organization—Response Structure

ESF #10 operates under direction of CFR. CFR will identify and provide a coordinator based on the assistance needed for an ESF #10 incident. CFR provides the regional point of contact and represents ESF #10 in its dealings with any work at the Emergency Operations Center (EOC) or Multiagency Coordinating Groups (MAC Group). CFR will have staff on duty at the Joint Field Office (JFO) as needed, for the duration of the emergency response period.

Actions and Responsibilities

Table 10-3. Actions and Responsibilities

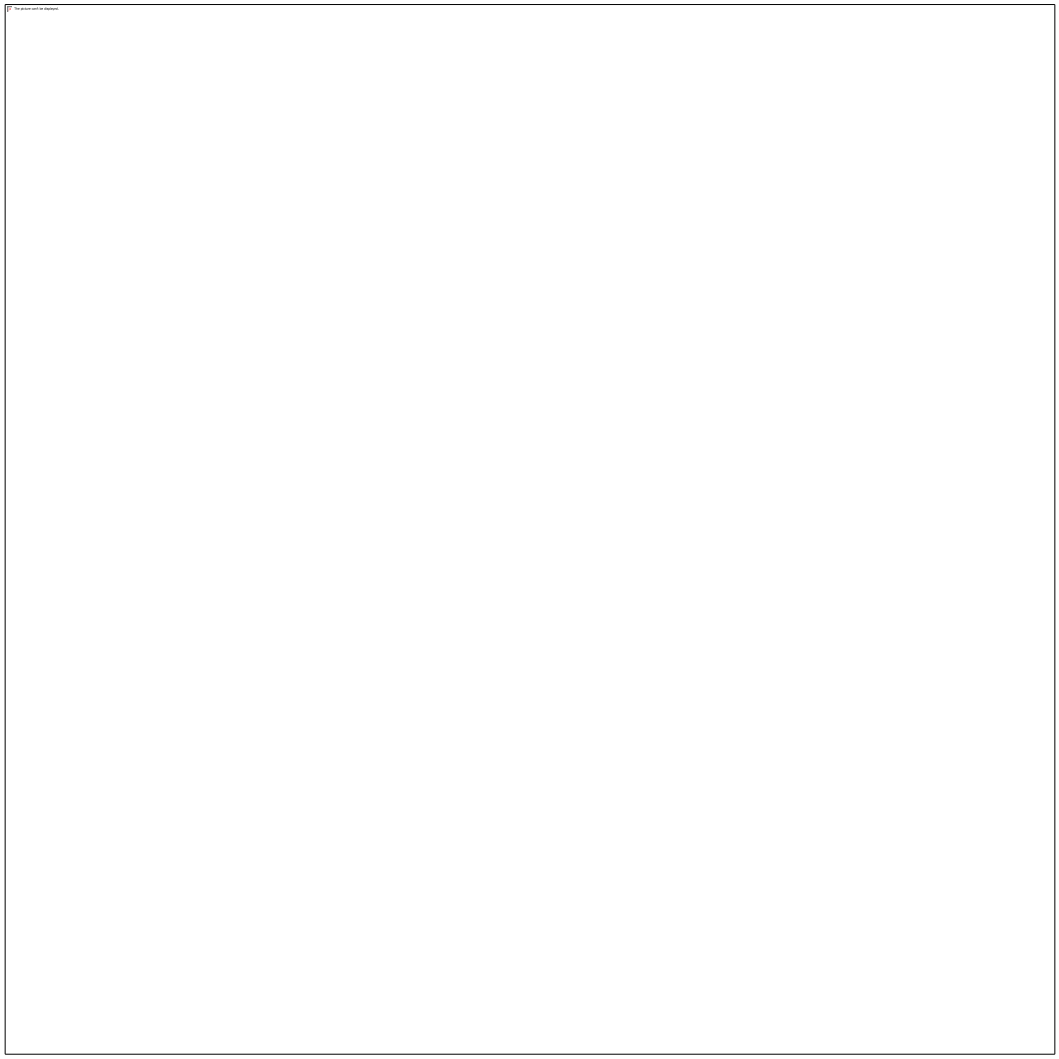
Functional Category	Actions and Responsibilities

General	• Any local fire suppression organization or SC DES activates ESF #10 and notifies required personnel or individuals of activation.
	• CFR, as the ESF #10 Coordinator:
	  ○ provides information to the EOC or MAC Group through the chain of command for the duration of the incident.
	  ○ provides technical, coordination, and administrative support and personnel, facilities, and communications for ESF #10.
	  ○ coordinates primary and support agencies for planning and operational needs.
	  ○ coordinates resolution of conflicting operational demands for Oil and HAZMAT response resources
	  ○ Coordinates logistical support for government resources to maintain operational readiness.
	  ○ Manages and coordinates USAR resources coming in from out of area.
	  ○ Provides incident and situational reports and assessments as required.
	• All personnel and private entities shall follow ICS and NIMS principles while executing their duties associated with ESF #10.
	• Law Enforcement (LE) Agencies investigate potential crimes (terrorism, attacks etc…) if the situation warrants. Stillwater County Sheriff's office notifies federal LE if terrorism or other federal crime is suspected.

Responding Fire Department	• Establish Incident Command/ Unified Command Post • Establish/maintain communication with facility official/ operator • Perform size-up of situation and address incident scope • Prevent extinguishment of primary pipeline fire unless for immediate life safety/rescue needs

	• Conduct fire protection to non-pipeline property and affected structures • Determine hazardous areas (Hot-Warm-Cold Zones) and respective safety measures • Implement initial community protective actions including evacuation/ shelter in-place warning
Law Enforcement	• Interface with Incident Command/ Unified Command Post • Establish perimeter security, crowd control and traffic control away from hazardous areas • Ensure security of pipeline facilities and valve sites • Conduct incident investigation to determine if accidental or criminal • Assist in community protective measures (ie. evacuation, notifications, etc…) • Provide additional support as necessary
Emergency Medical	• Interface with Incident Command/ Unified Command Post • Provide emergency medical care for affected responders and citizens • Develop EMS/ Hospital medical treatment plan for gas/ H2S • Communicate with hospital on treatment and decontamination methods • Provide additional support as necessary
Dispatch Center	• Activate emergency services (fire, law enforcement, EMS, public works and emergency management) based on incident needs, following incident commander instructions or standard protocols • Ensure notification of pipeline officials via emergency contact numbers • Coordinate activation of community warning systems as directed by fire, law enforcement or emergency management • Notify nearby known critical operations and vulnerable populations (schools, hospital, government buildings) as directed by the incident commander • Ensure formal notification of additional reporting authorities as directed
Facility/ Operator	• Notify Dispatch Center (9-1-1 facility) and initiate site safety procedures, including facility/ area evacuation • Interface with Incident Command/ Unified Command Post • Conduct primary facility response and repair actions • Support ongoing off-site emergency operations as necessary • Coordinate incident remediation/ recovery (clean up company, service restoration

Fugure 10.1 General Location of Oil and Gas Pipelines in Stillwater County



Signatures

We, the undersigned, understand our roles and responsibilities as outline in ESF #10.

Carol Arkell, Coordinator
Stillwater County Disaster and Emergency Services

Rich Cowger, Chief
Columbus Fire/Rescue Department